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Araújo, Anna Karolina Lages de; Filho, Augusto Cezar Antunes de Araujo; Ibiapina, Laís Gama; Nery, Inez Sampaio; Rocha, Silvana Santiago da

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Federal University of Rio de Janeiro State



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## INTEGRATIVE REVIEW OF THE LITERATURE

**Dificuldades enfrentadas por enfermeiros na aplicabilidade da fitoterapia na atenção básica: uma revisão integrativa**

**Difficulties faced by nurses on the applicability of phytotherapy in the basic attention: an integrative review**

**Las dificultades que enfrentan las enfermeras en la aplicabilidad de la fitoterapia en la atención básica: una revisión integral**

Anna Karolina Lages de Araújo<sup>1</sup>, Augusto Cezar Antunes de Araujo Filho<sup>2</sup>, Laís Gama Ibiapina<sup>3</sup>, Inez Sampaio Nery<sup>4</sup>, Silvana Santiago da Rocha<sup>5</sup>

### ABSTRACT

**Objective:** Analyzing the articles available in the literature about difficulties found by nurses on the applicability of phytotherapy in Basic Care. **Method:** The integrative review was the method adopted. To searching for studies, the following databases were selected: PubMed, LILACS and Portal Capes. There were included seven studies. **Results:** The articles indicated the absence of planning at the implementation of phytotherapy and other integrative practices and a part of management and of the proper health team as the main difficulties found. **Conclusion:** It needs for investments by the part of the managers on the introduction of implementation programs of those integrative therapies and complementary, beyond training and formation of human resources in the área. **Descriptors:** Nursing, Phytotherapy, Primary health care.

### RESUMO

**Objetivo:** Analisar artigos disponíveis na literatura sobre as dificuldades encontradas por enfermeiros na aplicabilidade da fitoterapia na Atenção Básica. **Método:** A revisão integrativa foi o método adotado. Para busca dos estudos, as seguintes bases de dados foram selecionadas: PubMed, LILACS e Portal de Periódicos da Capes. Foram incluídos sete estudos. **Resultados:** Os artigos indicaram a ausência de planejamento na implantação da fitoterapia e de outras práticas integrativas e complementares na atenção básica, a falta de capacitação dos profissionais de saúde e a não valorização por parte da gestão e da própria equipe de saúde como as principais dificuldades encontradas. **Conclusão:** Fazem-se necessários investimentos por parte dos gestores na introdução de programas de implantação das terapias integrativas e complementares, além de capacitação e formação de recursos humanos na área. **Descritores:** Enfermagem, Fitoterapia, Atenção primária à saúde.

### RESUMEN

**Objetivo:** Analizar en artículos disponibles en la literatura acerca de las dificultades encontradas por los enfermeros en la aplicabilidad de la fitoterapia en la Atención Primaria. **Método:** La revisión integradora fue el método aprobado. Para coger los estudios, se seleccionaron las siguientes bases de datos: PubMed, LILACS y Portal Capes. Se incluyeron siete estudios. **Resultados:** Los artículos muestrearon falta de planificación en el despliegue de la medicina a base de hierbas y otras prácticas de integración complementarias en la atención primaria, la falta de formación de los profesionales de la salud y la no apreciación por la parte de la dirección y del propio personal de la salud como las principales dificultades que encuentran. **Conclusión:** Se hacen necesarias las inversiones por la parte de los administradores en la introducción de los programas de implementación de las terapias de integración y complementarias y la formación y desarrollo de recursos humanos en el área. **Descriptores:** Enfermería, Fitoterapia, Atención primaria de salud.

<sup>1</sup>Nurse. Master degree in Nursing Graduate Program from the Federal University of Piauí. Teresina/PI, Brasil. E-mail: karol\_lages@hotmail.com; <sup>2</sup>Nurse. Master degree in Nursing Graduate Program from the Federal University of Piauí. Teresina/PI, Brasil. E-mail: araujoaugusto@hotmail.com; <sup>3</sup>Nurse. Master degree in Nursing Graduate Program from the Federal University of Piauí. Teresina/PI, Brasil. E-mail: ibiapina.gama.lais@gmail.com; <sup>4</sup>Nurse. PhD in Nursing. Professor of the Nursing Course of the Graduate Program (Master and PhD) from the Federal University of Piauí. Teresina/PI, Brasil. E-mail: ineznery.ufpi@gmail.com; <sup>5</sup>Nurse. PhD in Nursing. Professor of the Nursing Course of the Graduate Program (Master and PhD) from the Federal University of Piauí. Teresina/PI, Brasil. E-mail: silvanasantiago27@gmail.com

## INTRODUCTION

The use of nature for therapeutic ends is as old as the human civilization. Historically, medicinal plants are considered important for herbal medicine and discovery of new drugs, being in the plant kingdom the greatest contribution. The term phytotherapy corresponds to the herbal medicine therapy that uses drugs with active components of plants or plant derived and which has its origin in the knowledge and popular use.<sup>1</sup>

The human discovery of useful or harmful properties of the plant is rooted in empirical knowledge. The animal behavior observation and empirical verification of the effects of eating this or that plant in the human body played an important role in the discovery of herbal drugs. Historical references show reports on medicinal plants in almost all civilizations, the first reference to the use of plants as medicine found in Chinese work, referring to 2800 BC.<sup>2</sup>

In Brazil, the use of plants to treat diseases showed influences of African, Indigenous and European cultures. Records indicate that the Portuguese doctors first who came here, due to the scarcity of medicines used in Europe were forced to realize early on the importance of plant medicines used by indigenous peoples.<sup>1-2</sup>

The herbal medicine consists thus a link of complementary therapies, which are techniques aimed at health care for the individual, whether in prevention, treatment or cure, considering the man as a whole rather than a set of isolated parts. With the development of the pharmaceutical industry and the paradigm shift in the construction of knowledge in health, this use has decreased, but in recent decades, natural and complementary therapies have expanded around the world, which may be related to: the high price of private medical care, high cost of manufactured drugs, precariousness of assistance and the tradition of using plants as therapeutic supplement.<sup>3</sup>

Moreover, the need of the population for control of their own body and restoring their health, taking health practices for themselves and family, associated to the dangers of abusive and irrational use of pharmaceuticals is leading to a greater search for complementary and integrative practices, in particular, phytotherapy.<sup>2</sup>

In this context, these practices should be widely internalized by health professionals, in particular the staff of the Family Health Strategy (FHS), because they are the professionals most accessible to the public and the most knowledgeable of popular knowledge, by the proximity to the everyday life of these families. And within the FHS team give particular emphasis to the professional nurse, for his strong relationship with the practices of prevention and health promotion. Because of these practices carried out daily in their work routine, the nurse builds a stronger link with the community, which contributes to the quality of care. This increased contact allows these professionals to recognize the culture and the popular knowledge of the community where they are inserted, being able to employ them in the health care practice for this population.<sup>4</sup>

Through Resolution No. 197, from March 19<sup>th</sup>, 1997, of the Federal Council of Nursing, the alternative therapies have been recognized as a specialty and/or qualification of the Nursing professional.<sup>5</sup> With the Ordinance No. 971 of May 3<sup>rd</sup>, 2006, the Ministry of Health consolidated the National Policy on Integrative and Complementary Practices (PNPIC) in the Unified Health System (SUS), consolidating this practice in the SUS and encompassing all health professionals.<sup>1</sup>

This study aims to analyzing the difficulties faced by the nurses of Basic Attention in the use of herbal medicine.

## METHOD

To reach the proposed objective we opted for the choice of the integrative review (RI). The construction of the review was based on the following steps: 1) Development of the research question; 2) Search in the literature of the primary studies; 3) Data extraction of primary studies; 4) Evaluation of primary studies to be included in the review; 5) Analysis and synthesis of the review results; and 6) Presentation of review.<sup>6</sup> The guiding question of the review was: "What are the difficulties faced by the nurses of Basic Attention in the use of herbal medicine?".

The search for primary studies was performed in databases National Library of Medicine National Institutes of Health (PubMed), Latin American and Caribbean Health Sciences (LILACS) and Capes Journal Portal. To perform the search, the controlled descriptors were defined according to each database and non-controlled descriptors were established according to previous readings on the topic of interest. After this, these descriptors were combined in different ways in order to establishing a broad search in the chosen bases.

In PubMed database we used the following controlled descriptors: Phytotherapy, Primary Health Care, Nursing. For LILACS and Capes Portal bases controlled descriptors were: Primary Health Care, Herbal Medicine, Medicinal Plants and Nursing; it was also used as descriptors: Primary Care and Health Professionals.

The criteria for inclusion of primary studies for review were: studies that demonstrated the use of herbal medicine in primary care and the nursing professional view on this practice; studies were published in English, Portuguese or Spanish, from January 2004 to July 2014; there were excluded all secondary studies, as: reviews, which were from the literature, integrative or systematic.

The search for primary studies took place in July 2014 and was carried out by two of the authors of the study. The study includes seven primary studies, one from the databases PubMed, three LILACS and three CAPES Portal. The extraction of data from primary studies was performed by two of the review authors independently. The analysis was performed in a descriptive way, including a summary of each study in this review and making comparisons between differences and similarities in the studies.



RESULTS E DISCUSSION

From the articles included in this study, it was found that most were published in the journal "Science & Public Health" (n = 4), and of the Brazilian regions that most published was the Northeast, with four articles on the subject. Regarding the methodological approach, most of the research used the qualitative, in which there was a predominance of the descriptive and exploratory type. Only two studies have adopted the quantitative and qualitative approach. One can also observe the growth of thematic by the studies, where there is an enhancement of publications in recent years (Table 1).

Table 1. Characterization of the studies included. Teresina, Piauí, Brazil, 2014.

Title of the study	Authors/Year	Study design	Journal	UF
The use of herbs and medicinal plants in basic health units in the municipalities of Cascavel and Foz do Iguaçu-Paraná: the vision of health professionals.	Bruning MCR, Mosegui GBG, Vianna CMM. 2012	Exploratory, descriptive and qualitative.	Scienc & Collective Health	PR
Difficulties of health professionals facing the use of plants and herbal medicines.	Varela DSS, Azevedo DM. 2013	Descriptive and qualitative.	Search Magazine: Critical Care	RN
Nurses ' perception of the family health strategy on the use of herbal medicine.	Sampaio LA, Oliveira DR, Kerntopf MR, Brito Júnior FE, Menezes IRA. 2013	Descriptive-exploratory, qualitative.	Journal of Nursing of Minas Gerais	CE
Phytotherapy in the basic attention: looks of professionals and managers from the Family Health Strategy of Teresina (PI), Brazil.	Fontenele RP, Sousa DMP, Carvalho ALH, Oliveira FA. 2013	Quali-quantitative.	Scienc & Collective Health	PI
Complementary and alternative medicine in basic healthcare network: a qualitative approach.	Nagai SC, Queiroz MS. 2011	Qualitative.	Scienc & Collective Health	SP
Phytotherapy in Basic Health Network: the look of Nursing.	Bastos RAA, Lopes AMC. 2010	Exploratory-descriptive, quantitative and qualitative.	Brazilian Journal of Health Sciences	PB
A method for deploying and promoting access to Integrative and Complementary Practices in primary health care.	Santos MC, Tesser CD. 2012	Qualitative using action on research.	Scienc & Collective Health	SC

Legend: UF (Federative Unit); PR (Paraná); RN (Rio Grande do Norte); CE (Ceará); PI (Piauí); SP (São Paulo); PB (Paraíba); SC (Santa Catarina).

An exploratory, descriptive and qualitative study carried out in Rio Grande do Sul, aiming to analyze the knowledge of managers and health professionals working in primary care about herbal medicine. The sample consisted of: ten health professionals, five nurses, three doctors, one assistant nurse and a nursing technician. For data collection we used the interview technique, using a structured questionnaire. The results showed that during graduation or in the workplace, health professionals have not been trained on the subject in question.<sup>7</sup>

The objective defined by a survey conducted in Rio Grande do Norte was to identify the difficulties faced by doctors and nurses in the applicability of medicinal plants and herbal medicines in the Family Health Strategy (FHS). With a sample of 19 health professionals, was used to capture the data the technique of semi-structured interviews. The results showed that the difficulty in using medicinal plants and herbal medicines, due to the lack of knowledge of the professionals on Integrative and Complementary Practices, lack of inputs in the health services, cultural resistance of the population and the fragility of popular knowledge.<sup>8</sup>

In a study in Ceará that aimed to recognize the perception of nurses about the use of herbal medicine in FHS was developed with a sample of 15 nurses, where the closure of the interviews was given by theoretical saturation. The results revealed that knowledge of the interviewees, most of the time, restricted and informal, and are finding it difficult to implement herbal practices, such as not value by managers and their own health team.<sup>4</sup>

Order to recognizing the perception of the inclusion of herbal medicine in primary care, eight health administrators and 68 FHS professionals in Teresina (PI), 36 nurses, 18 doctors and 14 dentists it used a semi-structured questionnaire with questions concerning to personal data, knowledge of herbal medicine and their views on the potential inclusion of this basic care. There are, in general, that the respondents accept the institutionalization of herbal medicine and make personal use of this feature, but the popular knowledge is predominant. Moreover, it is deficient technical training in herbal medicine for health professionals, as well as knowledge of policies involving the theme in question. Managers, in turn, showed full opening for discussion of the subject, listing reasons, strategies and difficulties of political and structural.<sup>9</sup>

Scholars from São Paulo focused on social representations of health professionals about the introduction of complementary and alternative medical practices in the core network, in order to analyze the conditions, problems and obstacles in the implementation of these practices in health services. Results showed that the success of this inclusion was due to the support and request for this type of service for customers, health vision of health professionals, which show an opening for this type of project and intend to enhance and expand their practice, and also the very prospect of complementary and integrative practices, which is in line with the health proposal concerned the doctrine of the Unified Health System (SUS).<sup>10</sup>

Research carried out in the state of Paraíba, aiming to evaluate the knowledge that nursing professionals have about herbal medicine and the difficulties encountered in implementing this therapy in the Family Health Units. The population consisted of nursing professionals who work in the Family Health Program, where the results showed deficit in

nurses' knowledge of herbal medicine, this being one of the main difficulties encountered in the implementation of this feature in the Family Health Program.<sup>3</sup>

The purpose of a study developed through action research in Santa Catarina was to present and explain a method for implementation and promotion of access to complementary and integrative practices, where the results showed that the inclusion of such practices in primary health care (APS), configure an access expansion of action and qualification of services, from the perspective of comprehensive care to population health, and to be consolidated as a therapeutic strategy and health promoting PHC, the various influences that interfere should be considered during this process.<sup>11</sup>

Primary studies have addressed the lack of planning in the implementation of complementary and integrative practices in primary care, the lack of training of health professionals and not valuing by management and their own health team as the main difficulties in the use of therapies among them, the herbal medicine.

In Campinas (SP), despite the successful implementation of these practices in the core network, two negative aspects were detected: insufficient planning and a simplified view that converts the alternative rationales mere techniques that follow the same mechanistic principles of allopathic medicine and the same reified understanding by the team members about the disease.<sup>10</sup>

Health professionals who participated in the survey in Paraná reported they were not consulted about the introduction of herbal medicine in Primary Health Care Units of Foz do Iguaçu. Also, did not receive training on therapy for graduation or in the Basic Health Units (BHU) where they work. Of respondents reported six access to information on herbal medicine through popular knowledge, a through training in basic health unit, two acquired knowledge through regular four through the media, with four of them cited more than one of the options.<sup>7</sup>

To establishing herbal medicine in primary care it requires a proper care planning, taking into account cultural factors and using existing herbal resources that can improve the health status of the population. For this, one needs to train professionals on the subject, from cultivation to the prescription, improving the rational use of these drugs.<sup>7,10</sup>

Nurses from the FHS of Caicó (RN) indicated the absence of inputs in the health services, the fragility of popular knowledge and the professional knowledge deficit about complementary and integrative practices (PIC) as difficulties encountered in the applicability of medicinal plants and herbal medicines. As for the academic training, most nurses came from public universities and said little closer to the PIC. Only 40% of them attended a specific discipline on this subject in graduation, and with respect to short course in the area and/or extension project developed in the specific area of medicinal plants or herbal, only 20% of nurses reported having.<sup>8</sup>

In assessing the formal knowledge that nursing professionals have regarding herbal medicine, a study conducted in Paraíba, there was a predominance of professionals who had no formal knowledge (60%), as opposed to 40% who claimed to have knowledge. And in relation to how this knowledge was acquired, 20% (3 quotes) claimed to have acquired information about this therapy training courses, 6,66% (1 quote) on graduation discipline, 6,66% (1 citation) in their work, 6,66% (1 quote) said to have acquired this knowledge



through other means such as magazines, newspapers and books, while 60% (9 quotes) reported not having a formalized knowledge about Herbal Medicine.<sup>3</sup>

The same was observed in the study mentioned above, in that among the 37 professionals interviewed, 18 were nurses and, among all respondents, 19 (51%) had some specialty training in complementary/alternative therapies, including four in herbal medicine. Besides the lack of professional training, scored to other problems such as insufficient number of human resources, lack of physical fitness of unity, lack of appropriate materials and lack of staff awareness on the subject.<sup>10</sup>

It is also worth mentioning that health managers recognize the factors in the insertion of institutionalized form of herbal medicine in primary care. The main difficulties appear as the political, in discussing the appropriate instances, management and social control, the possibility and implementation of public policies involving herbal medicine; the structural, mainly to group actors to jointly build this deployment and how to operationalize the inclusion of herbal medicine in the Unified Health System (SUS).<sup>9</sup>

In the analysis of the difficulties encountered by nurses on the implementation of Herbal Medicine in Basic Health Units (BHU) of João Pessoa (PB), it was observed that 46,67% (7 quotes) these professionals responded that insufficient knowledge of professionals is a the obstacles that prevent the implementation of this therapy in FHS, 33,33% (5 quotes) reported the lack of incentives of managers, 13,33% (2 quotes) reported lack of physical structure and 6,66% (1 quote) reported lack of access to raw material. Moreover, said it was important to implement the herbal medicine program to increase knowledge of the professionals on this therapy and rescue the knowledge of medicinal plants by the community.<sup>3</sup>

Thus, measures need to be taken by municipal managers in an attempt to provide knowledge about the efficacy and safety of medicinal plants/herbal and training of staff working in FHS for the use and management seems quite effective.<sup>8</sup>

Although participants were nurses of the studies found on the subject have shown, in its entirety, favor the use of herbal medicine as an alternative therapy, one of the biggest obstacles is still punctuated the devaluation by the other primary care professionals and managers regarding the practice of this therapy.<sup>4</sup>

In the study found the federal unit of Santa Catarina, an action research showed that despite the inclusion of PIC in SUS be a challenge, using a method derived from the municipal experiences analysis facilitates the development of sound and sustainable actions, fostering participatory management, a holistic and responsible and careful expansion of practices and knowledge in care, in addition to providing the record of experiences, contributing to the implementation of CIP in the APS.<sup>11</sup>



## CONCLUSION

Based on the results of the primary studies included in this integrative review can be concluded that the main difficulties encountered by nurses in the applicability of herbal medicine were the lack of planning in the implementation of this and other complementary and integrative practices in primary care, the lack of training of professionals health and not valuing by management and their own health team.

It is essential that the members of the Family Health Strategy team develop effective strategies to assisting them in coping with these difficulties, since these therapies are considered very important in the lives of users and need to be practiced.

There are seen investments required by managers in the introduction of deployment of complementary and integrative therapies programs, and in particular, herbal medicine, and training and development of human resources in the area, with physical and structural support, since the PNPIC aims to advance the Institutionalization of Integrative and Complementary Practices at SUS.

## REFERENCES

1. Ministério da Saúde (BR). Práticas integrativas e complementares: plantas medicinais e fitoterapia na Atenção Básica. Brasília (DF); 2012. Disponível em: [http://bvsms.saude.gov.br/bvs/publicacoes/praticas\\_integrativas\\_complementares\\_plantas\\_medicinais\\_cab31.pdf](http://bvsms.saude.gov.br/bvs/publicacoes/praticas_integrativas_complementares_plantas_medicinais_cab31.pdf)
2. Tomazzoni MI; Negrelle RRB; Centa ML. Fitoterapia popular: a busca instrumental enquanto prática terapêutica. Texto & Contexto Enfermagem. 2006 Jan-Mar;15(1):115-21. Disponível em: <http://www.redalyc.org/pdf/714/71415114.pdf>
3. Bastos RAA, Lopes AMC. A Fitoterapia na Rede Básica de Saúde: o Olhar da Enfermagem. R bras Ci Saúde. 2010 Abr-Jun; 14(2):21-8. Disponível em: <http://periodicos.ufpb.br/ojs/index.php/rbcs/article/viewFile/3877/5299>
4. Sampaio LA, Oliveira DR, Kerntopf MR, Brito Júnior FE, Menezes IRA. Percepção dos enfermeiros da estratégia saúde da família sobre o uso da fitoterapia. Rev Min Enferm. 2013 Jan-Mar; 17(1):76-84. Disponível em: <http://www.reme.org.br/artigo/detalhes/580>
5. Conselho Federal de Enfermagem. Resolução n. 197, de 19 de março de 1997. Estabelece e reconhece as Terapias Alternativas como especialidade e/ou qualificação do profissional de Enfermagem. Brasília: COFEN; 1997.

6. Mendes KDS; Silveira RCCP; Galvão CM. Revisão Integrativa: método de pesquisa para a incorporação de evidências na saúde e na enfermagem. *Texto Contexto Enferm.* 2008 Out-Dez; 17(4): 758-64. Disponível em: <http://www.scielo.br/pdf/tce/v17n4/18.pdf>
7. Brunning MCR, Mosegui GBG, Vianna CMM. A utilização da fitoterapia e de plantas medicinais em unidades básicas de saúde nos municípios de Cascavel e Foz do Iguaçu - Paraná: a visão dos profissionais de saúde. *Ciênc. Saúde coletiva* [online]. 2012 Out;17(10):2675-85. Disponível em: <http://www.scielo.br/pdf/csc/v17n10/17.pdf>
8. Varela DSS, Azevedo DM. Dificuldades de profissionais de saúde frente ao uso de plantas medicinais e fitoterápicos. *R. pesq.: cuid. fundam.* [online]. 2013 Abr-Jun; 5(2):3588-600. Disponível em: [http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/2033/pdf\\_727](http://www.seer.unirio.br/index.php/cuidadofundamental/article/view/2033/pdf_727)
9. Fontenele RP, Sousa DMP, Carvalho ALH, Oliveira FA. Fitoterapia na Atenção Básica: olhares dos gestores e profissionais da Estratégia Saúde da Família de Teresina (PI), Brasil. *Ciênc. saúde coletiva* [online]. 2013 Ago; 18(8):2385-94. Disponível em: <http://www.scielo.br/pdf/csc/v18n8/23.pdf>
10. Nagai SC, Queiroz MS. Medicina complementar e alternativa na rede básica de serviços de saúde: uma aproximação qualitativa. *Ciênc. saúde coletiva* [online]. 2011 Mar; 16(3):1793-800. Disponível em: <http://www.scielo.br/pdf/csc/v16n3/15.pdf>
11. Santos MC, Tesser CD. Um método para a implantação e promoção de acesso às Práticas Integrativas e Complementares na Atenção Primária à Saúde. *Ciênc. saúde coletiva* [online]. 2012 Nov; 17(11):3011-24. Disponível em: <http://www.scielo.br/pdf/csc/v17n11/v17n11a17.pdf>

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Contact of the corresponding author:  
Anna Karolina Lages de Araújo. Universidade Federal do Piauí. Campus  
Ministro Petrônio Portella. Departamento de Enfermagem. Bloco 12.  
CEP 64049-550, Teresina - Piauí. Fone (86) 32155558.  
Email: karol\_lages@hotmail.com